

June 23, 2022

Registered Nursing in Crisis

*National Survey Reveals Insufficient Staffing,
Severe Moral Distress, and High Turnover*

Grace Dunn

*Research Associate
Illinois Economic Policy Institute*

Larissa Petrucci, Ph.D.

*Postdoctoral Research Associate
Project for Middle Class Renewal
University of Illinois at Urbana-Champaign*

Frank Manzo IV, M.P.P.

*Executive Director
Illinois Economic Policy Institute*

Robert Bruno, Ph.D.

*Professor and Director
Project for Middle Class Renewal
University of Illinois at Urbana-Champaign*



Executive Summary

Registered nursing faces a crisis. For over two years, the COVID-19 pandemic has stressed nurses, tested their skills and stamina, and exacerbated labor shortages. Each of these factors have significant implications for standards of patient care within America’s health care industry.

Results from a fall 2021 survey of more than 2,200 registered nurses in hospitals across the United States reveal that the stress of COVID-19 and inadequate industrywide staffing practices have caused a majority of nurses to consider leaving the profession altogether and have created alarming levels of moral distress.

- 43 percent of nurses cared for 6 patients or more at any one time during their shifts.
- Only 30 percent of nurses reported that staffing levels were based on patient needs.
- Only 15 percent of nurses felt nurse-to-patient ratios in their units or facilities were safe.
- 45 percent of nurses have had to work beyond their scheduled shifts for “mandatory overtime” to cover scheduling gaps.
- 93 percent of nurses experienced “moral distress,” caused when they feel that the ethical course of action is not being pursued due to organizational or institutional constraints.
- 51 percent of nurses were considering leaving the profession within the next 12 months—and the top reasons why were “unsafe staffing” and “unresolved moral distress.”

A total of 13 states have implemented laws to promote safe staffing standards and improve the working conditions of nurses as well as the health outcomes of patients.

- According to survey results, nurse-to-patient ratios (also called “safe patient limits”) enacted in two states decrease the share of nurses caring for 6 patients or more by 12 percent, reduce moral distress by 4 percent, and make nurses 6 percent less likely to consider leaving the profession.
- Legislation requiring staffing committees in eight states can be effective if the committees’ recommendations are enforced. When committee recommendations are enforced, nurses are 18 percent less likely to care for 6 patients or more, 8 percent less likely to experience moral distress, and 11 percent less likely to consider leaving the profession.
- Public reporting of staffing levels, as is required in three states, may improve transparency but has not resulted in significant improvements in nurse staffing outcomes.

Union membership also improves staffing conditions and combats labor shortages.

- Union nurses were 8 percent less likely to care for unsafe numbers of patients than nonunion nurses.
- Union nurses were 4 percent less likely to consider leaving the profession and 10 percent less likely to have left nursing positions in the previous 6 months.
- Union nurses were more demographically diverse and 19 percent more likely to earn at least \$75,000 per year, which may improve the labor market competitiveness of nursing occupations and produce lower rates of attrition and turnover.

To improve staffing levels, reduce moral distress and burnout, and attract and retain registered nurses, states could consider implementing safe patient limits, enforcing staffing committee recommendations, and strengthening workers’ collective bargaining rights. Additionally, increasing support for mental health programs, and offering new scholarships and student loan forgiveness for prospective nurses could help improve job quality and attract more individuals to these vital, in-demand careers.

Table of Contents

Executive Summary	i
Table of Contents	ii
About the Authors	iii
Introduction	1
Research on Nurse Staffing Outcomes and Standards	2
Research on Moral Distress Among Nurses	3
Survey Design and Methodology	4
Analysis of the Fall 2021 National Survey of Registered Nurses	5
<i>Laws that Promote Safe Staffing Standards</i>	10
<i>Unionization and Nurse Outcomes</i>	16
<i>Illinois Nurses Also Face Inadequate Staffing, Moral Distress, and High Turnover</i>	19
Five Potential Policy Options	20
Conclusion	22
Sources	23
Photo Credits	26

About the Authors

Grace Dunn is a Research Associate at the Illinois Economic Policy Institute. She earned a Bachelor of Arts in Public Policy from the University of Michigan Ford School of Public Policy and a Minor in Writing. She can be contacted at gdunn@illinoisepi.org.

Larissa Petrucci, Ph.D. is a Postdoctoral Research Associate at the Project for Middle Class Renewal at the University of Illinois at Urbana-Champaign. She earned a Doctor of Philosophy in Sociology from the University of Oregon, a Master of Arts in Sociology from the University of Oregon, and a Bachelor of Arts in Sociology from San Francisco State University. She can be contacted at larissap@illinois.edu.

Frank Manzo IV, M.P.P. is the Executive Director of the Illinois Economic Policy Institute. He earned a Master of Public Policy from the University of Chicago Harris School of Public Policy and a Bachelor of Arts in Economics and Political Science from the University of Illinois at Urbana-Champaign. He can be contacted at fmanzo@illinoisepi.org.

Robert Bruno, Ph.D. is a Professor at the University of Illinois at Urbana-Champaign School of Labor and Employment Relations and is the Director of the Project for Middle Class Renewal. He earned a Doctor of Philosophy in Political Theory from New York University, a Master of Arts from Bowling Green State University, and a Bachelor of Arts from Ohio University. He can be contacted at bbruno@illinois.edu.

Introduction

Registered nurses are among the most essential workers in the United States. In communities across the country, however, nursing professionals are facing a crisis (Jacobs, 2021). For over two years, the COVID-19 pandemic has stressed nurses, tested their skills and stamina, and produced feelings of dismay (Prasad et al., 2021). Shortages of registered nurses have made it more difficult to treat hospitalized patients, caused longer wait times in emergency rooms, and led to rushed or inadequate standards of patient care (Jacobs, 2021).

Even before the pandemic, the nursing industry was already experiencing a shortage of workers (Carnevale, Smith, & Gulish, 2015; MacKusick & Minick, 2010). An aging population of Baby Boomers requiring health care services, limited resources for nursing schools which turned down tens of thousands of applicants due to budget constraints, and insufficient staffing levels that negatively impacted the existing nurse workforce were each contributing factors (Mather, 2016; Rosseter, 2017). More than 75 percent of registered nurses reported that the nursing shortage adversely affected the quality of their work life and the quality of patient care (Rosseter, 2017). In addition, registered nurses experience high levels of workplace violence, sexual harassment, and other occupational hazards (di Martino, 2003; Twarog, 2018). The combination of insufficient staffing levels and workplace violence caused burnout, contributing to between 30 percent and 50 percent of new registered nurses deciding to either change positions or leave nursing completely within the first 3 years of clinical practice (Aiken et al, 2002).

The pandemic exacerbated labor shortages across a range of occupations. While employers' demand for workers quickly returned to pre-pandemic levels, the number of people in the labor force did not recover at the same pace (Fowers & Van Dam, 2021). The drop in workers has been driven by an array of factors, including early retirements, families lacking child care who were forced to reduce their hours, workers suffering from long-term COVID-19 symptoms, and the 1 million COVID-19-related deaths as of mid-2022—of whom more than 250,000 were between the ages of 18 and 64 years old (Faria e Castro, 2021; Furst, 2022; Dickson et al., 2021; Bach, 2022; CDC, 2022a). The Centers for Disease Control and Prevention have also reported over 2,200 COVID-19-related deaths among health care personnel (CDC, 2022b). Job quality and labor market competitiveness have become top issues, with workers—including registered nurses—seeking better pay, improved work environments, safer workspaces, and enhanced work-life balance (Liu, 2022).

This report, conducted by researchers at the Project for Middle Class Renewal (PMCR) at the University of Illinois at Urbana-Champaign and the Illinois Economic Policy Institute (ILEPI), investigates staffing levels, mental health concerns, and turnover rates among registered nurses using results from a national survey. After a review of the research on nurse staffing and moral distress as well as a brief description of the methodology of the survey, data is presented on average nurse-to-patient ratios, staffing practices, moral distress, and the national shortage of registered nurses. Differences by state policy frameworks and by union membership are subsequently presented. Responses from Illinois nurses are also highlighted. Then, five potential policy recommendations are discussed before a concluding section recaps key findings.

Research on Nurse Staffing Outcomes and Standards

Academic research finds that the understaffing of registered nurses leads to poor patient outcomes. High numbers of patients per nurse are associated with an increase in medical errors, patient infections, bedsores, and heart failure as well as higher rates of hospital mortality (Laschinger & Leiter, 2006; Hughes, 2008; Aiken et al., 2007; Neuraz et al., 2015; Ball et al., 2018). Increases in the number of patients assigned to a nurse can also lead to gaps in care, such as little planning and follow-up care, missed opportunities to provide psychological and emotional support, fewer patients receiving timely medications, and less patient education (Bartmess, Myers, & Thomas, 2021; Griffiths et al., 2018). As a result, researchers have concluded that the most important factor affecting hospital patient satisfaction is the availability of registered nurses (Aiken et al., 2018).

Nurse staffing levels have been linked to better health outcomes for patients. Mortality rates of patients undergoing general surgery in hospitals with above-average nurse staffing levels are 17 percent lower than those with below-average nurse staffing levels. (Silber et al., 2016). Another 2018 study finds that higher nurse staffing levels are associated with lower mortality based on more than 138,000 hospital admissions from 2012 through 2015 (Griffiths et al., 2018). Higher nurse staffing levels have also been correlated with higher survival rates for those who experience in-hospital cardiac arrests, with significant improvements for Black patients (Carthon et al., 2021).

Nurse-to-patient ratios (also called “safe patient limits”) have been implemented in California since 2004 to limit the number of patients for whom a nurse is responsible for caring during a given shift. After California implemented nurse-to-patient ratios, the likelihood of in-patient death within 30 days of hospital admission fell, patient time spent in the intensive care unit fell by 24 percent, and patient time spent in surgical units fell by 31 percent (Aiken et al., 2010; Kane et al., 2007). Additionally, another study on pneumonia readmission rates in hospitals found that California had statistically lower rates of readmission than two other states with available data that did not have the same levels of nurse staffing at the time (Flanagan et al., 2016). Nurses in California are also statistically more likely to report that staffing levels are based on the needs of patients in their units and more likely to report that the nurse-to-patient ratio in their units is “safe,” relative to their counterparts in the rest of the United States (Bruno, Twarog, & Manzo, 2019).

While there have been concerns about the cost of implementing nurse-to-patient ratios, research shows that these staffing standards have no negative impact on the financial performance of hospitals (Everhart et al., 2013). In the years after becoming the first state to enact safe patient limits, California’s hospitals experienced a revenue growth of 100 percent and employment growth of 16 percent compared with revenue growth of 75 percent and employment growth of 11 percent nationally (Manzo, 2019). In fact, implementing



standards for nurse-to-patient ratios has been shown to lower health care costs by “decreasing adverse patient events, readmissions, and length-of-stays” (Bartmess, Myers, & Thomas, 2021).

Beyond nurse-to-patient ratios, nurse staffing practices that may impact patient outcomes can also include the total number of nurses staffed during a given shift, the process by which nurses are assigned to patients, and nurse preparation (e.g., tenure, education, clinical expertise) (Bartmess, Myers, & Thomas, 2021). Poor staffing environments can lead to fatigue, burnout, and even exit from the occupation, creating high turnover rates and increased workloads for nurses left behind (Blouin, Smith-Miller, & Harden, 2016).


Research on Moral Distress Among Nurses

While research has shown that better staffing levels can improve patient outcomes, high numbers of patients per nurse may also lead to distress for nurses and be harmful to their job satisfaction and overall wellbeing. On any given day, nurses are required to make decisions that impact their patients’ quality of care. These decisions, despite years of training and practice, are not always straightforward, and a nurse’s preferred method of treatment may not always align with hospital, institutional, or bureaucratic directives. Situations can arise in which nurses may come to ethical decisions about what they should do, but they are constrained from taking the ethical course of action due to extenuating factors—such as inadequate staffing, lack of resources, financial limitations and pressures to decrease costs, unhealthy work environments, incompetent colleagues and administrators, ineffective communication, and hospital policies or power hierarchies (AACN, 2022).

“Moral distress” occurs when a nurse feels that the ethically correct action has not been pursued due to organizational or institutional constraints (Jameton, 2017). Moral distress has been recognized and discussed within the nursing industry since at least the early 1980s. Moral distress differs from moral uncertainty and emotional distress. For example, nurses who work in psychiatric wards may be emotionally distressed when restraining patients, but they will only experience moral distress if they believe that restraining the patient is the morally wrong thing to do (McCarthy & Deady, 2008). During the pandemic, a qualitative study of 31 nurses found COVID-19 to have resulted in new ways that nurses experience moral distress in the workplace, including fear of exposure to the virus, policies preventing nurses from assuming their usual roles, and scarce medical resources that reduced the quality of patient care (Silverman et al., 2021).

Repeated moral distress can have negative impacts on nurses (Pauly, Varcoe, & Storch, 2012). Nurses have described the physical and psychological effects of moral distress as frustration, anger, sadness, exhaustion, helplessness, and depression (Wiegand & Funk, 2012). Another study observed the physical effects of moral distress as sleeplessness, nausea, migraines, gastrointestinal issues, tearfulness, and physical exhaustion (Hanna, 2004). In addition to causing painful physical and psychological effects, moral distress can adversely impact patient care, decrease job satisfaction, and even lead to higher rates of nurse attrition and turnover (Wiegand & Funk, 2012; Cavaliere et al., 2010).

Survey Design and Methodology



In the fall of 2021, the D.C.-based nonprofit organization Nurses Take DC (NTDC) conducted a national survey of registered nurses on staffing levels, safety concerns, and moral distress. The survey consisted of over 50 questions and was conducted using a variety of social media outlets, including Facebook and TikTok, as well as the Nurses Take DC website. Responses were collected between October 1, 2021 and November 30, 2021 from 2,257 registered nurses (RNs) in all 50 states plus the District of Columbia.¹ As a result, this survey was conducted during a new wave of COVID-19-related cases, hospitalizations, and deaths brought on by the Delta variant but generally before the wave associated with the Omicron variant (Mallapaty, 2022; NYT, 2022). At the conclusion of the survey, nurses were provided the opportunity to comment openly about their working conditions. A total of 703 responded. A select few of these responses are shared throughout this report.

Figure 1 provides background information on survey respondents. For the entire sample of 2,257 RNs, the margin of error is ± 2.1 percent at the 95-percent confidence level.² About two-in-five respondent RNs were between the ages of 18 years old and 44 years old (41 percent) and three-in-five were 45 years old or older (59 percent). More than nine-in-ten were women (93 percent) and nearly nine-in-ten were white (89 percent). Black RNs (6 percent) and Hispanic RNs (5 percent) were underrepresented in the sample. Nationally, more than three-in-five RNs (64 percent) report that they have earned bachelor's degrees or higher. About one-fourth of the RNs surveyed were union members (27 percent), which is slightly higher than the national average (Figure 1).³

Figure 1 also shows that registered nurses from Illinois were disproportionately represented in the survey. A total of 267 respondents practiced in the State of Illinois. Illinois' nurses accounted for nearly 12 percent of the sample but are just over 4 percent of all registered nurses nationally.⁴ The section in this report that highlights responses from registered nurses in Illinois carries a margin of error of ± 6.0 percent (Figure 1).

¹ Note that only select responses from the survey are presented in this paper. While NTDC collected the data, the analysis in the present study was conducted solely by PMCR and ILEPI.

² As comparisons, according to data from the 2021 *Current Population Survey Outgoing Rotation Groups*, 87 percent of RNs are female, 67 percent are white non-Hispanic, 13 percent are Black or African American, and 9 percent are Hispanic or Latinx (EPI, 2022).

³ According to data from the 2021 *Current Population Survey Outgoing Rotation Groups*, 17 percent of RNs are union members (EPI, 2022).

⁴ According to data from the 2021 *Current Population Survey Outgoing Rotation Groups*, 4 percent of RNs live in Illinois (EPI, 2022).

Figure 1: Summary Statistics of Survey of Registered Nurses, October-November 2021

Summary Statistics	Sample Size	Share of Sample	Margin of Error
Total Sample	2,257	100.0%	±2.1%
Age Cohort: 18-44 Years Old	931	41.2%	±3.2%
Age Cohort: At Least 45 Years Old	1,329	58.9%	±2.7%
Gender Identification: Female	2,088	92.5%	±2.1%
Gender Identification: Male	151	6.7%	±8.0%
Racial or Ethnic Background: White	1,999	88.6%	±2.2%
Racial or Ethnic Background: Black or African American	137	6.1%	±8.4%
Racial or Ethnic Background: Hispanic or Latinx	111	4.9%	±9.3%
Racial or Ethnic Background: All Other	154	6.8%	±7.9%
Education: Bachelor’s, Master’s, or Doctoral Degree	1,398	61.9%	±2.6%
Education: Associate Degree	608	26.9%	±4.0%
Education: High School Diploma or Equivalent	81	3.6%	±10.9%
Union Status: Union Member	600	26.6%	±4.0%
Union Status: Not a Union Member	1,619	71.7%	±2.4%
State of Employment as RN: Illinois	267	11.8%	±6.0%

Source(s): Authors’ analysis of a national survey of 2,257 registered nurses conducted from October 1, 2021 through November 30, 2021 by Nurses Take DC (NTDC, 2021). For a .csv file with selected survey results, please contact author Robert Bruno at bbruno@illinois.edu.

Analysis of the Fall 2021 National Survey of Registered Nurses

Registered nurses across the United States report that staffing levels are inadequate, that they are experiencing alarming rates of moral distress, and that they are considering leaving the nursing profession altogether (Figure 2). Fully 43 percent of RNs nationally cared for 6 or more patients at one time during their normal shifts.⁵ Just 30 percent of RNs reported that staffing in their units was based on the needs of patients. An even smaller share of nurses,

⁵ Nationally, high ratios (6:1 or greater) were especially present for nurses employed at Critical Access Hospitals (44 percent) and Community Hospitals (39 percent) compared to Tertiary and Academic Hospitals (26 percent). Importantly, 76 percent of nurses working at “Other” kinds of hospitals reported an average of 6 more patients during their shifts. In California, which has nurse-to-patient ratios, or a “safe patient limits” law, only 24 percent of RNs cared for 6 or more patients at any one time.

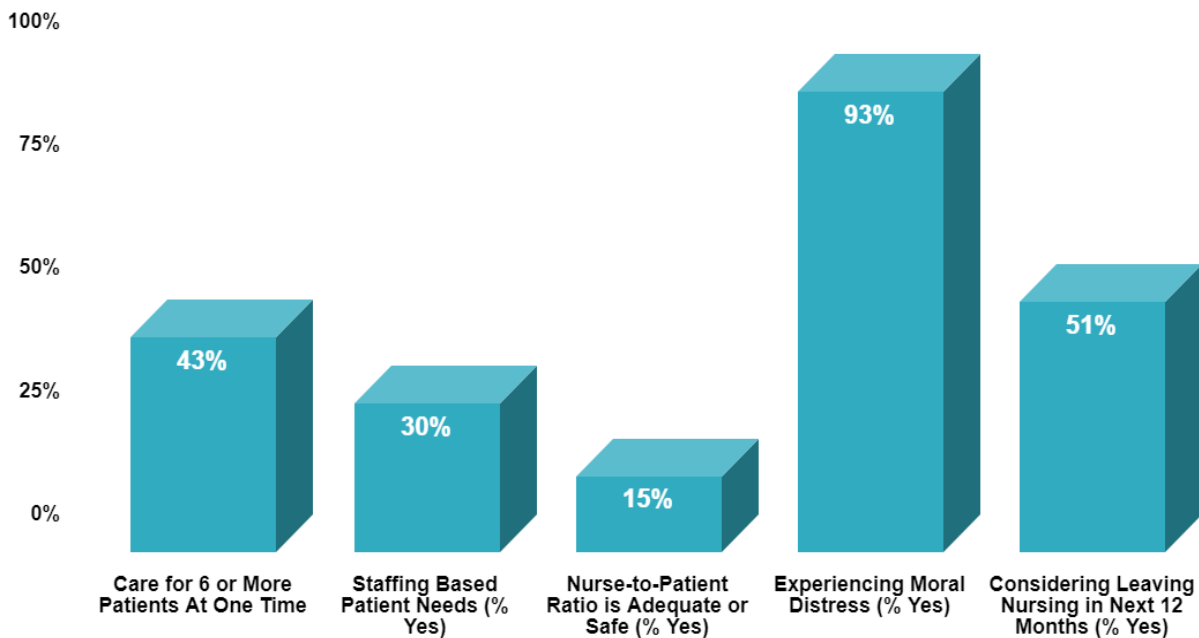
15 percent, said they felt the nurse-to-patient ratios in their units or facilities were “adequate” or “safe.” At the same time, 93 percent of nurses believed they were “experiencing moral distress in the work environment.” Poor staffing levels and high moral distress may contribute to labor shortages among registered nurses. A majority of nurses (51 percent) responded that they were “considering leaving the nursing profession within the next 12 months.”

“What kind of care are we giving these patients? The kind where they are back within 30 days and with further complications. Under these conditions, we are forced to provide the bare minimum, with a lack of time and resources. If anyone was wondering why nurses are leaving or why there are no experienced staff, this is the number one reason: safe staffing!”

PCU, Intermediate Step Down, and Telemetry Nurse

Staffing conditions are generally better for the 1,132 registered nurses who reported that they cared for 5 or fewer patients than the 866 nurses who cared for 6 or more patients at any one time (Figure 3). RNs who cared for 5 or fewer patients were 20 percent more likely to report that staffing is based on patient needs, 11 percent more likely to feel their nurse-to-patient ratio was adequate or safe, and 8 percent less likely to say that they were considering leaving the nursing profession. RNs who cared for 5 or fewer patients were also 2 percent less likely to experience moral distress in the workplace. Each of these results is statistically significant.

Figure 2: Topline Findings on Nurse Staffing, Moral Distress, and Labor Shortages



Source(s): Authors’ analysis of a national survey of 2,257 registered nurses conducted from October 1, 2021 through November 30, 2021 by Nurses Take DC (NTDC, 2021).

Figure 3: Staffing Conditions of Registered Nurses by Average Nurse-to-Patient Ratio

Responses to Questions on Staffing Conditions by the Number of Patients that RNs Usually Care For at One Time During a Shift	Safe: 5 or Fewer Patients	Unsafe: 6 or More Patients	Safe (5 or Fewer) Difference
Sample Size	1,132	866	--
Percent Saying Staffing Is Based on Needs of Patients	38.8%	18.8%	+20.0%
Percent Saying Nurse-to-Patient Ratio is Adequate or Safe	18.9%	7.9%	+11.1%
Percent Experiencing Moral Distress in the Work Environment	92.7%	95.0%	-2.3%
Percent Considering Leaving Nursing in Next 12 Months	47.4%	55.3%	-8.0%

Source(s): Authors' analysis of a national survey of 2,257 registered nurses conducted from October 1, 2021 through November 30, 2021 by Nurses Take DC (NTDC, 2021). *Note that 259 respondents did not report how many patients they care for at one time on average during a normal shift. All differences are statistically significant based on conventional t-tests ($t \pm 1.96$).

The 1,120 registered nurses who reported that they were considering leaving the profession were asked to detail their reasons (Figure 4). Respondents could select more than one answer. About four-in-five RNs who were considering leaving the profession said that it was due to unsafe staffing (79 percent). Another four-in-five said that it was due to unresolved moral distress (79 percent). More than one-in-ten cited their fears of COVID-19 infection (12 percent), family obligations such as childcare (11 percent), and scheduled retirements (10 percent).

A number of other staffing practices were included in the survey of registered nurses (Figure 5). Only 27 percent of RNs said that staffing is reassessed and adjusted based on changes in patient conditions, patient needs, or different shifts. Additionally, while 45 percent of RNs were aware that their hospital has an acuity tool to estimate and budget for adequate nurse staffing allocations, just 24 percent reported their hospital actually uses it. Due to these inadequate staffing practices, 45 percent of RNs reported that they have had to work beyond their scheduled shifts for "mandatory overtime" to cover scheduling gaps.

"My perspective on nursing changed the day I had 7 patients with no Patient Care Technician. I had to divorce myself from the stress of being unable to meet all of my patient's needs."

Telemetry and Med/Surg Nurse

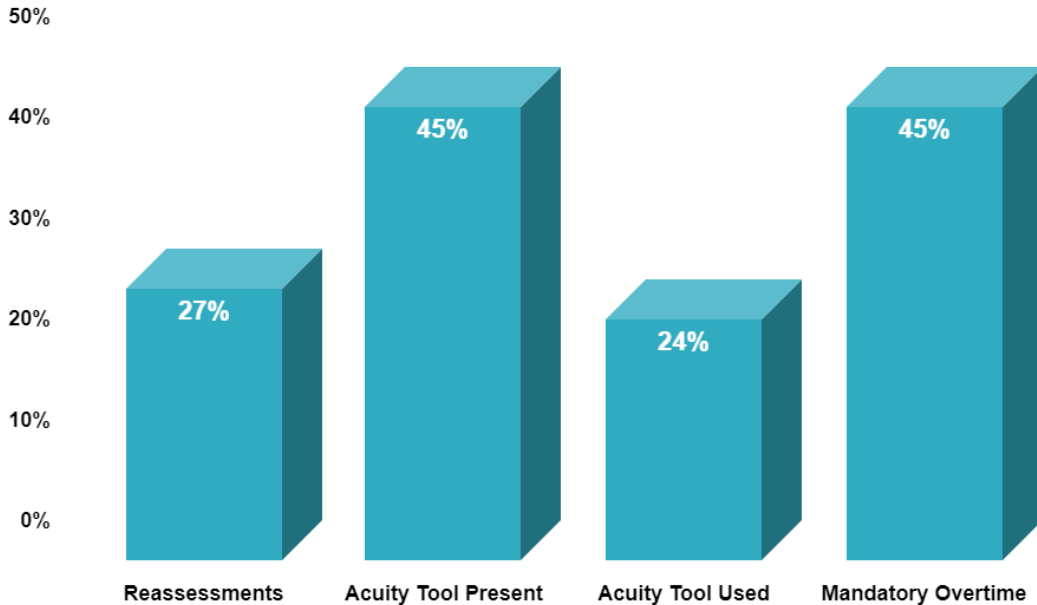


Figure 4: Number of Nurses Considering Leaving the Profession and Their Top Reasons Why

Top 5 Reasons Why Registered Nurses Are Considering Leaving the Profession in the Next 12 Months (Respondents Could Select Multiple Answers)	Number of RNs	Share of Those Considering Leaving
Nurses Considering Leaving the Profession in Next 12 Months	1,120	100.0%
<i>Top 5 Reasons for Considering Leaving</i>		
Unsafe Staffing	888	79.3%
Unresolved Moral Distress	882	78.8%
Fear of COVID-19 Infection	132	11.8%
Family Obligations	123	11.0%
Scheduled Retirement	115	10.3%

Source(s): Authors' analysis of a national survey of 2,257 registered nurses conducted from October 1, 2021 through November 30, 2021 by Nurses Take DC (NTDC, 2021).

Figure 5: Staffing Practices in U.S. Hospitals, According to the Survey of Registered Nurses



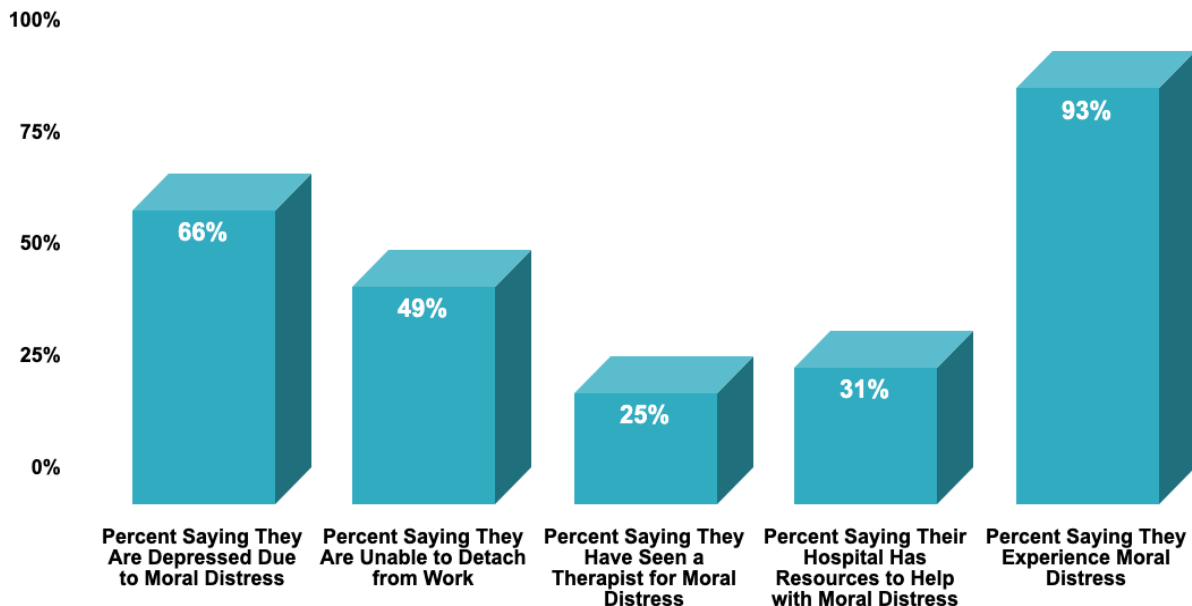
Source(s): Authors' analysis of a national survey of 2,257 registered nurses conducted from October 1, 2021 through November 30, 2021 by Nurses Take DC (NTDC, 2021).

"Moral distress, PTSD, anxiety, and depression have replaced so much of the happiness from my first few years as a nurse. Hospitals could have prevented so much of the strain put on nurses, but they didn't. I have learned that I am replaceable."

ER Nurse

Inadequate staffing standards and high rates of moral distress likely impact mental wellbeing (Figure 6). Fully 66 percent of surveyed RNs thought that they were depressed due to moral distress. Another 49 percent said they were not able to detach from work when they have personal time off. Despite these mental health concerns, nurses reported a general lack of support from their respective hospitals. Only 30 percent of the survey respondents said that their workplace provided resources to support staff in determining levels of moral distress and improve staff wellbeing. Moreover, just 25 percent of survey respondents said that they had seen therapists for the moral distress they were experiencing. While these numbers are striking, it should again be noted that this survey was largely conducted before the Omicron variant emerged and caused further strain on the U.S. healthcare system.

Figure 6: Metrics on the Mental Wellbeing of Registered Nurses in U.S. Hospitals



Source(s): Authors' analysis of a national survey of 2,257 registered nurses conducted from October 1, 2021 through November 30, 2021 by Nurses Take DC (NTDC, 2021).

"Nursing shortages are an enormous problem. I have been given way too many unsafe assignments and I am not able to refuse them. Moral distress is really an issue. I know so many nurses who have quit or changed jobs in the last year because they mentally can't do it anymore."

Adult ICU Nurse

The next two sections explore these findings in greater detail. In particular, results for RNs who work in states with laws on the books to implement certain staffing standards are compared with those for RNs who do not work in these states. Additionally, results for RNs who are union members are also contrasted with those for nonunion RNs.

Laws that Promote Safe Staffing Standards

To address nurse staffing concerns, increase overall wellbeing for nurses, and improve patient outcomes, some states have implemented laws to promote safe staffing standards. These laws primarily provide concrete definitions of “adequate numbers” of staffed nurses as required by all U.S. hospitals that participate in federal Medicare programs (Bartmess, Myers, & Thomas, 2021). According to the American Association of Nurses, there are 13 states that currently address nurse staffing in hospitals by law or through regulation, although states differ in their approaches. The three main policy frameworks that states have adopted are to 1.) require public reporting of nurse staffing levels, 2.) require staffing committees that are substantially comprised of registered nurses, and 3.) provide nurse-to-patient ratios in hospitals (Han, Pittman, & Barnow, 2021).

These three staffing standards may be categorized by “strength” of the law. Public reporting is a form of staffing transparency that does not involve any penalties for poor staffing levels or rewards for adequate or excellent staffing levels. As a result, it is generally the weakest of the three types of staffing standards. New Jersey, Rhode Island, and Vermont require public reporting. Staffing committees have the potential to offer better working conditions by including input from RNs and may thus be considered a stronger standard than public reporting laws.⁶ Connecticut, Illinois, Nevada, New York, Ohio, Oregon, Texas, and Washington have laws that ensure staffing committees are present in hospitals. Illinois and New York also have public reporting in addition to staffing committees. Finally, California remains the only state to establish minimum nurse-to-patient ratios in all units, ranging from 1 nurse per 1 patient in operating rooms to 1 nurse for every 6 patients in units that involve postpartum women. However, Massachusetts has also implemented a staffing law that

⁶ In Minnesota, public reporting of staffing levels is voluntary, but this study only examines states where public reporting is required or mandatory (Han, Pittman, & Barnow, 2021).



"I know that my work conditions are much better than most other hospitals; however, even with these 'staffing committees' in place, the people calling the shots ultimately are not nurses, disregard acuity, and refuse to close beds when staffing is too short. It has become extremely distressing knowing I cannot give enough attention and time necessary to all the patients to keep them safe."

PCU, Intermediate Step Down, and Med/Surg Nurse

guarantees 1 nurse for every 1 or 2 patients in intensive care units. Nurse-to-patient ratios, or “safe patient limits,” are the strongest of the three laws.

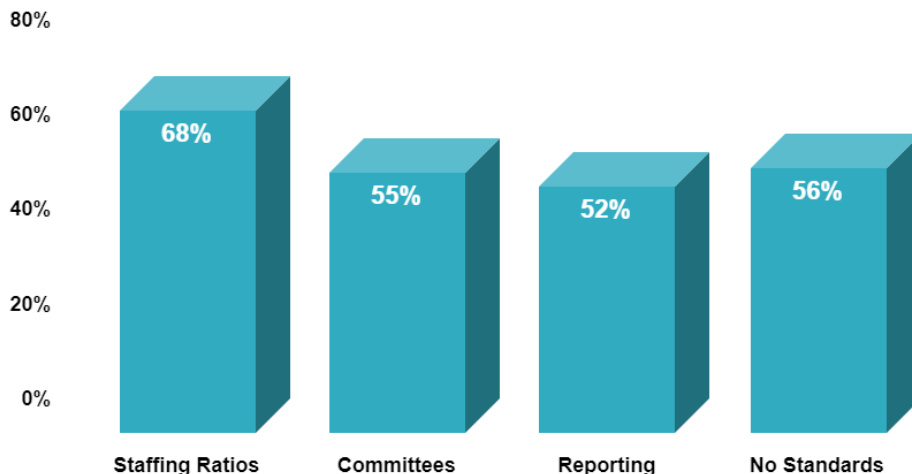
Nurse-to-patient ratios are associated with a lower number of patients (Figure 7). Fully 68 percent of nurses in California and Massachusetts reported having 5 patients or fewer assigned to them during their normal shifts, a considerably higher rate than states that require staffing committees (55 percent), states with public reporting (52 percent), and states with no staffing standards in place (56 percent). This strongly indicates that safe patient limits are particularly effective at achieving their intended goal of reducing nurse-to-patient ratios. The data also suggest that the presence of staffing committees and public reporting requirements do not necessarily contribute to improved nurse-to-patient staffing ratios. However, in states with staffing committees, the share of RNs caring for 5 patients or fewer was 73 percent among RNs who said that “the staffing recommendations determined by the staffing committees [are] implemented” but just 54 percent among RNs who either reported that the recommendations were not implemented or did not know whether they were. This suggests that committees may be an effective tool at improving staffing levels, but only if the committees’ recommendations are enforced.

"I would actually really enjoy my job if the patient ratio was safer."

Med/Surg Nurse

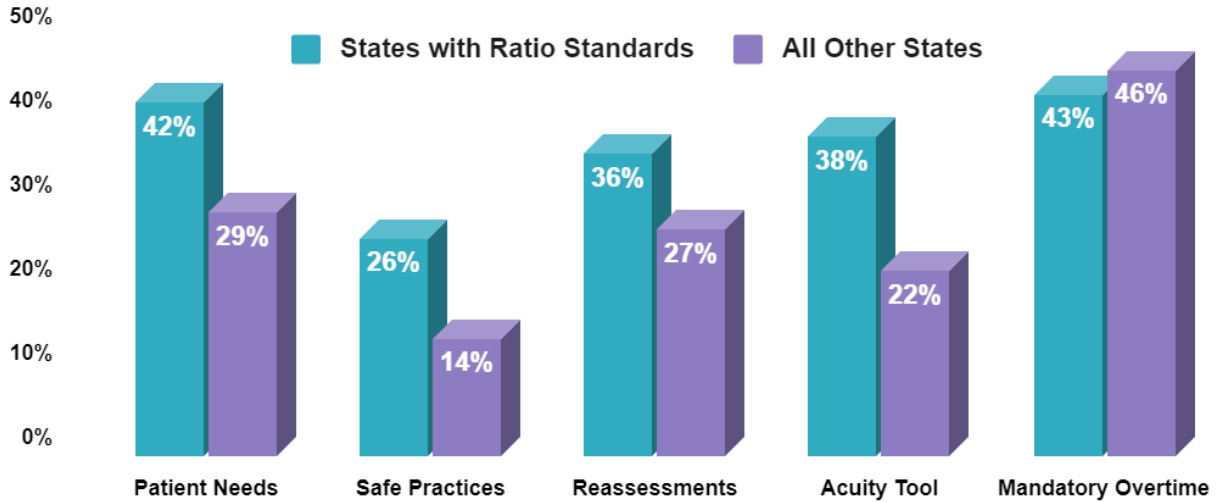
Figure 8 presents results for other staffing metrics and contrasts states with nurse-to-patient ratios with the rest of the country. California and Massachusetts—the only states with nurse-to-patient ratios—had better staffing practices across the board. In these two states with the strongest staffing standards, RNs were 13 percent more likely to report that staffing levels were based on the needs of their patients, 12 percent more likely to say that their units’ nurse-to-patient ratios were safe, 9 percent more likely to report that staffing was reassessed and adjusted when necessary, 16 percent more likely to work in hospitals that use acuity tools, and 3 percent less likely to report having to work mandatory overtime to cover scheduling gaps. However, even in California and Massachusetts, 74 percent of RNs reported that nurse-to-patient ratios in their units were unsafe—showing that, while strong staffing standards alleviated some safety concerns for nurses, they were still overwhelmingly present (Figure 8).

Figure 7: Share of Registered Nurses with 5 Patients or Fewer, by State Staffing Standards



Source(s): Authors’ analysis of a national survey of 2,257 registered nurses conducted from October 1, 2021 through November 30, 2021 by Nurses Take DC (NTDC, 2021).

Figure 8: Staffing Practices of States with Nurse-to-Patient Ratios versus All Other States



Source(s): Authors' analysis of a national survey of 2,257 registered nurses conducted from October 1, 2021 through November 30, 2021 by Nurses Take DC (NTDC, 2021).

While nurse-to-patient ratios consistently had positive impacts on staffing levels and overall working conditions, state laws and regulations to include staffing committees have more mixed results. Large portions of RNs in states that require staffing committees lacked knowledge of the policy and indicated that the recommendations of their staffing committees are not enforced (Figure 9). Only 35 percent of nurses working in states that require staffing committees affirmed that their hospitals used staffing committees, while 39 percent said they did not have one, and 26 percent said they did not know. When asked if their staffing committee is composed of a majority of RNs who primarily work direct patient care, only 31 percent said yes, 11 percent said no, and 57 percent said they did not know. When asked if recommendations determined by staffing committees are implemented in daily staffing censuses, 26 percent said yes and 74 percent said no.

Figure 9: Knowledge and Enforcement of Staffing Committees in States that Require Them

Knowledge and Enforcement of Staffing Committees Among Nurses in States that Require Staffing Committees	Sample	Yes	No	I Don't Know
Does Your Hospital Have a Staffing Committee?	581	34.9%	38.9%	26.2%
Is the Staffing Committee Composed of 50% RNs?	290	31.4%	11.4%	57.2%
Are Committees' Staffing Recommendations Implemented?	222	25.7%	74.3%	--

Source(s): Authors' analysis of a national survey of 2,257 registered nurses conducted from October 1, 2021 through November 30, 2021 by Nurses Take DC (NTDC, 2021).

"We are short-staffed, especially on nights, and our sicker patients are often paired not based on our criteria but on staffing available. We are all exhausted. Of the handful of nurses fully trained to do all the advanced skills on our unit, four have left in the last year."

Adult ICU Nurse

The presence of staffing committees only leads to better staffing practices if the committees' recommendations are enforced (Figure 10). RNs who live in states that require staffing committees are generally not statistically different from their counterparts who live in states with no staffing standards. For example, 28 percent of RNs in states that require staffing committees reported that staffing levels in their units were based on the needs of patients, compared with 29 percent in states without any staffing standards. However, strong differences emerge when the committees' recommendations are implemented in daily censuses. When RNs in states that require

staffing committees worked in hospitals that enforce their recommendations, they were 34 percent more likely to report that staffing levels were based on the needs of their patients, 15 percent more likely to say that their units' nurse-to-patient ratios were safe, 32 percent more likely to report that staffing was reassessed and adjusted when necessary, 33 percent more likely to work in hospitals that had acuity tools and actually used them, and 9 percent less likely to report having to work mandatory overtime to cover scheduling gaps. When RNs in states that require staffing committees worked in hospitals that do not enforce the committees' recommendations, they generally fared no better than their peers with no staffing standards in place. The results indicate that staffing committee legislation does not automatically translate into better staffing practices. Enforcement matters.

While the adoption of public reporting on staffing levels may improve transparency, it has not resulted in significant improvements in nurse staffing environments (Figure 11).

Nurses employed in states where public reporting is required were 4 percent more likely to say that staffing is based on patient needs and 2 percent more likely to say that staffing levels were reassessed, but they were 7 percent less likely to say that their nurse-to-patient ratios were safe. The shares of RNs in these states were statistically indistinguishable from states with no staffing standards in terms of their hospitals' usage of acuity tools and their rates of working mandatory overtime (Figure 11).

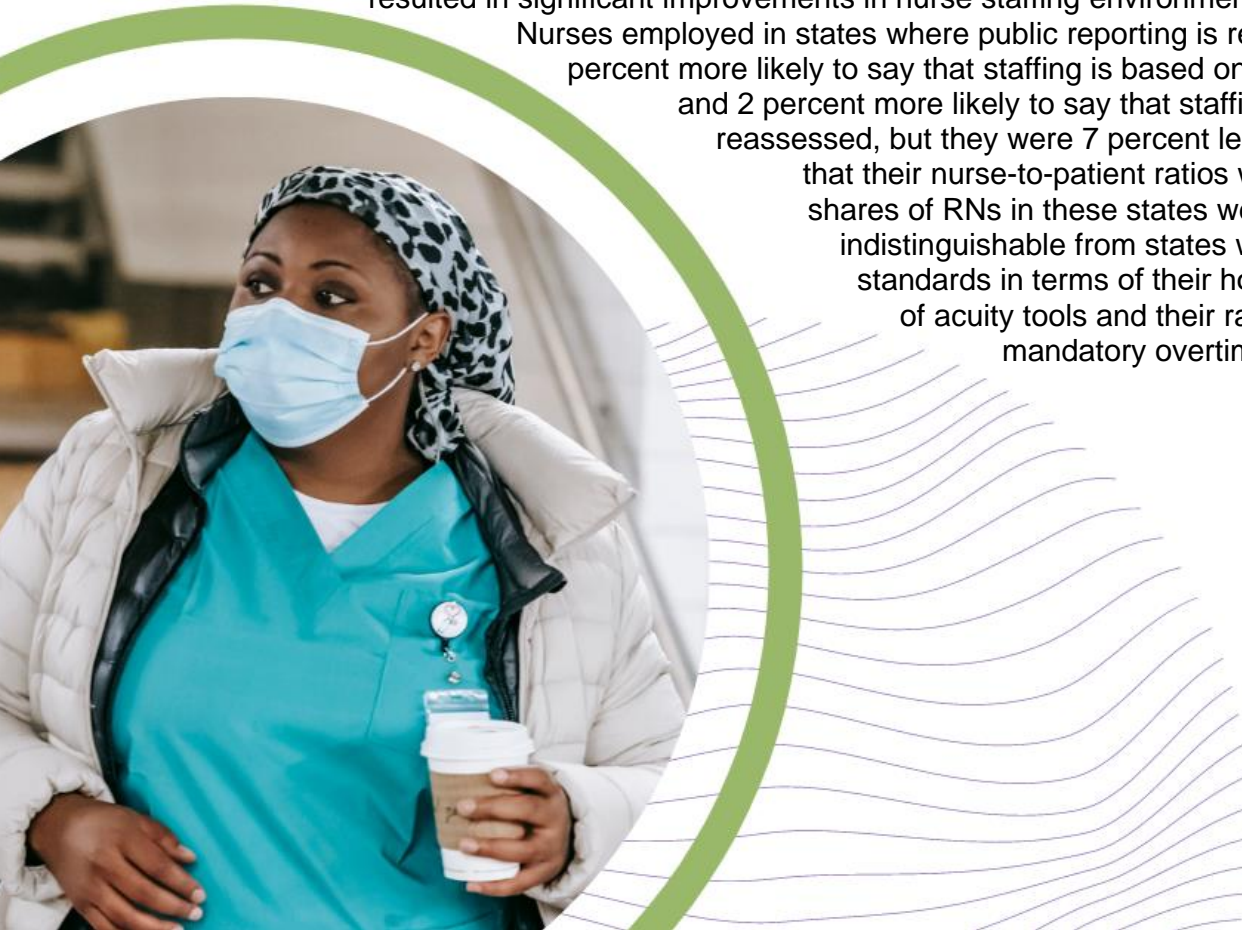
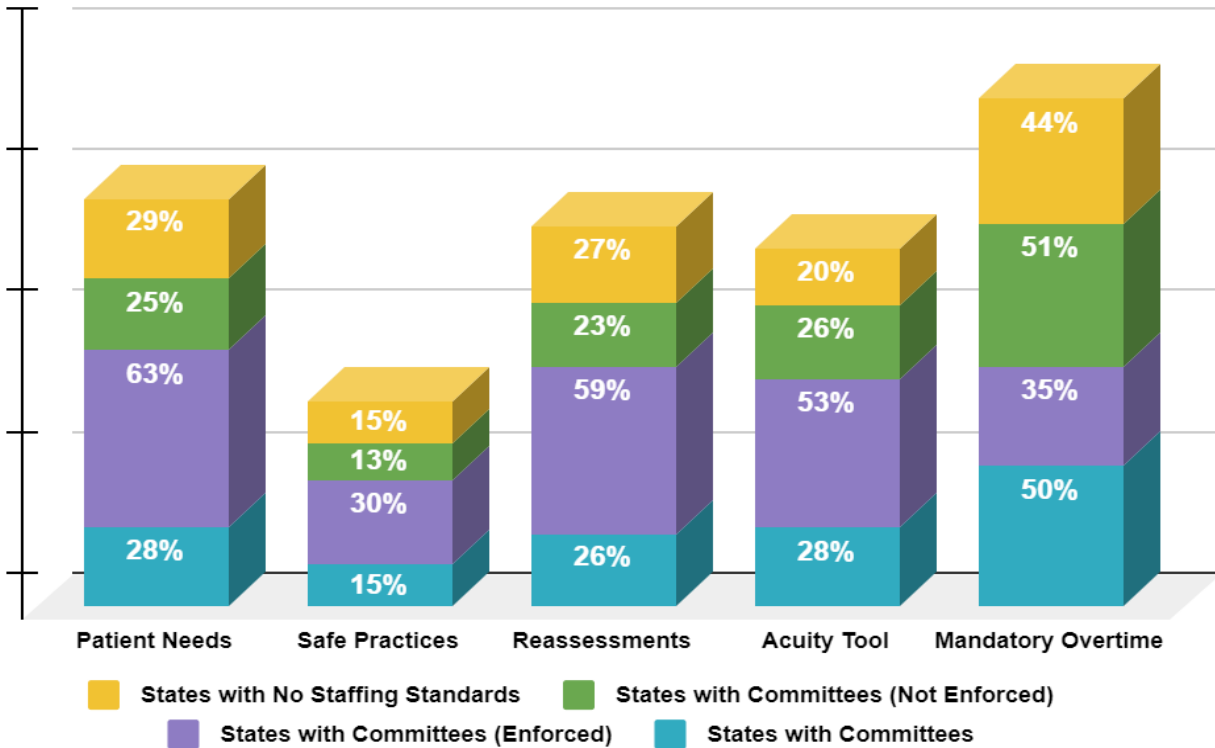


Figure 10: Staffing Practices of States Requiring Committees Versus States Without Standards



Source(s): Authors’ analysis of a national survey of 2,257 registered nurses conducted from October 1, 2021 through November 30, 2021 by Nurses Take DC (NTDC, 2021).

Figure 11: Staffing Practices in U.S. Hospitals, by State Staffing Standards

Staffing Practices by States with Different Policy Approaches	Nurse-to-Patient Ratios	Require Staffing Committees	Require Staffing Committees (Enforced)	Public Reporting Only	No Staffing Standards
Staffing in Unit Is Based on Patient Needs	42.2%	28.4%	62.5%	32.8%	28.8%
Nurse-to-Patient Ratio in Unit is Adequate or Safe	25.9%	14.5%	29.8%	7.8%	14.5%
Staffing is Reassessed Based on Changes	36.5%	26.3%	58.9%	28.6%	26.6%
Hospital Has and Uses an Acuity Tool	37.6%	27.9%	52.6%	19.1%	19.7%
Forced to Work “Mandatory Overtime”	42.9%	49.5%	35.1%	43.9%	43.7%

Source(s): Authors’ analysis of a national survey of 2,257 registered nurses conducted from October 1, 2021 through November 30, 2021 by Nurses Take DC (NTDC, 2021).

The data shows that registered nurses in states that have nurse-to-patient ratios reported better staffing practices than states that require committees, states that require public reporting, and states with no standards at all (Figure 11). In fact, states with staffing committees that are not enforced and states with public reporting were essentially on par with states that do not have any staffing standards in place. It was only when committee recommendations were implemented that they were effective. But while nurses who were in hospitals that enforced the recommendations of the required staffing committees had the best staffing outcomes, only a very small share of nurses fell into this category.

Figure 12 reveals that nurse-to-patient ratios and staffing committees that are enforced also contribute to lower levels of moral distress. While nurses in all states were experiencing high rates of moral distress, the share was lower in states with nurse-to-patient ratios (90 percent) and in environments where staffing committees were enforced (86 percent) than in states with no staffing standards (94 percent). Fully 67 percent of nurses in states without staffing standards reported that they were depressed due to moral distress compared to between 60 percent and 66 percent of nurses in states with some type of staffing standard in place. RNs in states without staffing standards were also less likely to have resources in their hospitals to help determine moral distress and improve staff wellbeing (30 percent) than their counterparts in states with some type of law (between 31 percent and 54 percent) (Figure 12).

Figure 12: Moral Distress and Turnover Metrics, by State Staffing Standards

Moral Distress and RN Turnover by States with Different Policy Approaches	Nurse-to-Patient Ratios	Require Staffing Committees	Require Staffing Committees (Enforced)	Public Reporting Only	No Staffing Standards
Percent Experiencing Moral Distress in Work Environment	90.5%	92.4%	86.0%	93.9%	94.2%
Percent Depressed Due to Moral Distress	65.7%	64.3%	59.6%	65.7%	66.9%
Percent Unable to Detach from Work	50.2%	44.8%	40.4%	52.2%	50.7%
Percent in Hospitals with Resources to Support Staff	30.5%	32.5%	54.4%	37.3%	29.6%
Percent Considering Leaving Profession in Next 12 Months	45.7%	49.0%	41.1%	56.3%	51.8%
Percent that Left a Nursing Position in Previous 6 Months	23.3%	26.1%	24.6%	22.4%	32.8%

Source(s): Authors' analysis of a national survey of 2,257 registered nurses conducted from October 1, 2021 through November 30, 2021 by Nurses Take DC (NTDC, 2021).

"I cannot have a full team, take care of my patients, and be a resource to my newer nurses with all the other duties. When I brought this up to leadership, my words were construed as if I was underperforming. No attempt was made to retain me when I put in my resignation."

Adult ICU, PCU Nurse



Finally, states with nurse-to-patient ratios and staffing committees that are enforced are less likely to experience RN turnover (Figure 12). In states without staffing standards, 52 percent of nurses reported that they were considering leaving the nursing profession in the next 12 months and 33 percent said they had left a nursing position for their current RN role in the previous 6 months. By contrast, in states with nurse-to-patient ratios, 46 percent of nurses were considering leaving the profession and 23 percent had changed positions—respectively 6 percent and 9 percent below their peers in states with no staffing standards. Among nurses in states with committees who were also in hospitals that implemented their recommendations, the share considering leaving the nursing profession altogether was 41 percent and 25 percent said they had recently left a nursing position (Figure 12). Nurses who worked in states with staffing standards had less turnover and were less likely to consider leaving the profession, suggesting that staffing standards can help address RN labor shortages.

Unionization and Nurse Outcomes

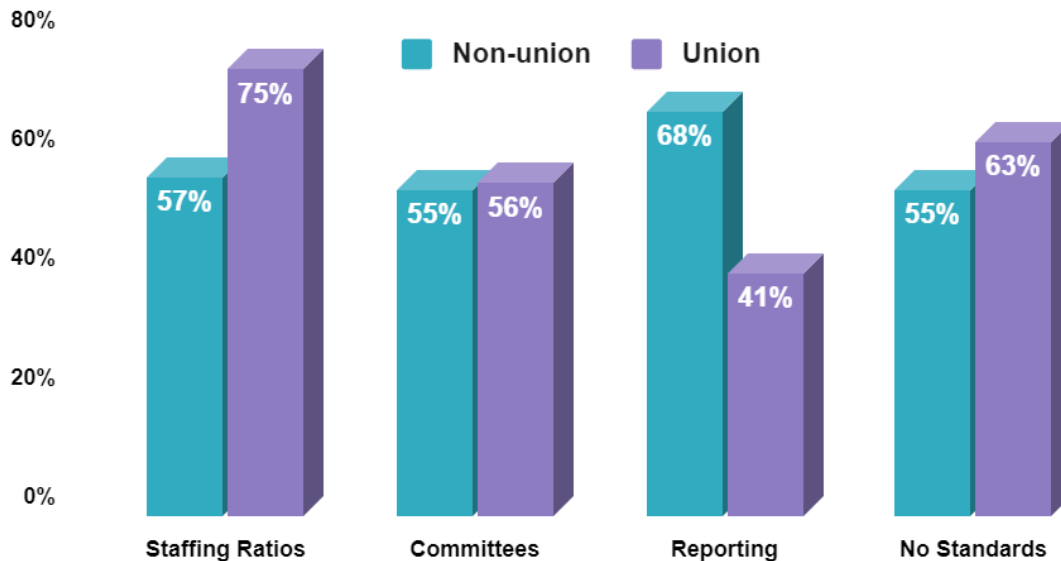
Union membership may also play a role in improving staffing conditions, reducing moral distress, and combatting labor shortages. A 2020 study, for example, found that union hospitals in Illinois were better prepared for the COVID-19 pandemic than nonunion hospitals, with higher staffing levels that allowed registered nurses to provide one to four more hours of care per patient compared to their nonunion counterparts ([Gigstad & Manzo, 2020](#)). Union hospitals also had up to 14 percent lower turnover for registered nurses and had 45 percent fewer vacancies for registered nurses ([Gigstad & Manzo, 2020](#)). Another 2016 academic study used data on hospital unionization in California between 1996 and 2005 and found that union hospitals outperformed hospitals that did not have a union election in 12 of 13 nurse-sensitive

patient outcomes. In particular, the research found that nurses' unions reduced the rates of pulmonary failure, central nervous system disorders, and metabolic derangement by between 15 percent and 60 percent (Dube et al., 2016). The researchers concluded that nurses' unions improve patient outcomes because they boost nurse retention, morale, and effectiveness. They also noted that many nurses' unions collectively bargain for safe patient limits.

In the fall 2021 survey of registered nurses in the United States, 63 percent of registered nurses who were union members reported that they cared for an average of 5 patients or fewer at any one time during their shifts (Figure 13). By contrast, 55 percent of nonunion nurses were responsible for 5 or fewer patients. Union nurses were thus 8 percent more likely to care for safe numbers of patients. Figure 13 also reveals that union members reported better staffing levels regardless of state law. As examples, compared to their nonunion counterparts, union nurses were 18 percent more likely to care for safe numbers of patients in states with safe patient limits and 10 percent more likely in states without staffing standards. The data shows that, when combined, unionization and safe patient limits can produce especially effective staffing outcomes (Figure 13).



Figure 13: Share of Registered Nurses with 5 Patients or Fewer, by Union Membership



Source(s): Authors' analysis of a national survey of 2,257 registered nurses conducted from October 1, 2021 through November 30, 2021 by Nurses Take DC (NTDC, 2021).

Union nurses generally experienced moral distress at the same rate as nonunion nurses (Figure 14). Union nurses were 1 percent less likely to say that they were depressed due to moral distress, although this difference is not statistically significant. Unions nurses were 6

percent more likely to report being able to detach from work during personal time off but were 3 percent less likely to work in hospitals that had resources to support staff in determining moral distress and improving staff wellbeing.

However, while results related to moral distress were mixed, the data are clear that nurses' unions can impact turnover within the profession (Figure 14). Compared with their nonunion counterparts, nurses in unions were 4 percent less likely to say that they were considering leaving the nursing profession in the next 12 months. Union nurses were also 10 percent less likely to report that they had left a nursing position in the last 6 months to take their current RN position. The data suggest that unionization may not substantially impact moral distress, but it can improve staffing levels and lessen nurse attrition and turnover.

Figure 14: Moral Distress and Turnover Metrics, by Union Membership

Moral Distress and RN Turnover by Union Membership Status	Union Nurses	Nonunion Nurses	Union Difference
Percent Experiencing Moral Distress in Work Environment	93.0%	93.4%	-0.4%
Percent Depressed Due to Moral Distress	65.5%	66.2%	-0.7%
Percent Unable to Detach from Work	44.1%	50.6%	-6.4%
Percent in Hospitals with Resources to Support Staff	28.4%	31.6%	-3.2%
Percent Considering Leaving Profession in Next 12 Months	47.6%	51.5%	-3.8%
Percent that Left a Nursing Position in Previous 6 Months	22.5%	32.3%	-9.7%

Source(s): Authors' analysis of a national survey of 2,257 registered nurses conducted from October 1, 2021 through November 30, 2021 by Nurses Take DC (NTDC, 2021).

Union nurses also differed from nonunion nurses in two other significant ways. First, union nursing workforces were more diverse than their nonunion peers (Figure 15). Union nurses were 2 percent more likely to identify as male, 12 percent less likely to be white, 3 percent more likely to be Black, and 2 percent more likely to be Hispanic. Second, union nurses earned higher incomes than nonunion nurses. Two out of every three union nurses (67 percent) earned at least \$75,000 per year compared to less than half of all nonunion nurses (48 percent). Union nurses were 17 percent more likely to earn at least \$100,000 per year and 6 percent less likely to earn annual salaries of \$50,000 or below. Higher levels of compensation could be a significant factor contributing to the lower rates of nurse attrition and turnover.

Illinois Nurses Also Face Inadequate Staffing, Moral Distress, and High Turnover

Before COVID-19, Illinois was already facing a shortage of about 20,000 registered nurses (Bruno, Twarog, & Manzo, 2019). A 2018 survey of more than 700 bedside nurses by the American Nurses Association of Illinois found that 55 percent of nurses said their workload was higher than they were comfortable with. Nurses also reported working with “dangerous” staffing levels 33 percent of the time (Brown, 2018). These staffing problems may have only been exacerbated by the pandemic and its related labor shortages.

Figure A contrasts responses from Illinois’ registered nurses with those from RNs in all other U.S. states. RNs that work in Illinois were 5 percent more likely to care for 5 patients or fewer at one time during their shifts. However, they were slightly less likely to report that staffing levels in their units were based on the needs of patients and were adequate or safe. Nevertheless, Illinois’ nurses were 1 percent less likely to report experiencing moral distress than their peers in other states, 7 percent less likely to be depressed due to moral distress, and 8 percent more likely to be able to detach from work during personal time off (Figure A).

Nurses in Illinois had lower turnover rates and were less intent on leaving the nursing profession than their counterparts in the rest of the country (Figure A). While 45 percent of all nurses in Illinois were considering leaving the profession, that figure was 6 percent below the rest of the nation. Similarly, 24 percent of nurses in Illinois said they had recently left nursing positions, which was a 7 percent lower turnover rate than nurses in other states. The Illinois nurses in the sample were significantly more likely to be union members than their peers and also worked in a state that requires both staffing committees and public reporting—both of which likely contribute to these differences in turnover.

Figure A: Selected Statistics from a Survey of 267 Nurses in Illinois, October-November 2021

Registered Nurses in Illinois: Staffing Levels, Staffing Practices, Moral Distress, and Labor Shortage Metrics	State of Illinois	All Other States	Illinois Difference
Percent with 5 Patients or Fewer at One Time During Shifts	60.7%	56.1%	+4.6%
Percent Saying Staffing Is Based on Needs of Patients	29.6%	30.1%	-0.4%
Percent Saying Nurse-to-Patient Ratio is Adequate or Safe	12.3%	15.7%	-3.4%
Percent Experiencing Moral Distress in Work Environment	92.0%	93.5%	-1.4%
Percent Depressed Due to Moral Distress	59.7%	66.6%	-6.9%
Percent Unable to Detach from Work	42.3%	49.8%	-7.5%
Percent Considering Leaving Profession in Next 12 Months	45.2%	51.1%	-5.8%
Percent that Left a Nursing Position in Previous 6 Months	23.7%	30.5%	-6.8%
Union Status: Union Member	57.6%	21.6%	+35.0%

Source(s): Authors’ analysis of a national survey of 2,257 registered nurses conducted from October 1, 2021 through November 30, 2021 by Nurses Take DC (NTDC, 2021). 267 respondents worked in Illinois.

Figure 15: Differences Between Union and Nonunion Nurses, October-November 2021 Survey

Demographic and Salary Differences Between Union Registered Nurses and Nonunion Registered Nurses	Union Nurses	Non-union Nurses	Union Difference
Gender Identification: Female	91.8%	93.5%	-1.7%
Gender Identification: Male	8.0%	6.3%	+1.8%
Racial or Ethnic Background: White	76.3%	88.1%	-11.8%
Racial or Ethnic Background: Black or African American	8.2%	4.8%	+3.4%
Racial or Ethnic Background: Hispanic or Latinx	6.2%	4.5%	+1.7%
Racial or Ethnic Background: All Other	9.3%	2.6%	+6.7%
Salary: \$100,000 or More	32.4%	15.0%	+17.4%
Salary: Between \$75,000 and \$99,999	34.6%	32.6%	+2.0%
Salary: Between \$50,000 and \$74,999	27.2%	40.6%	-13.4%
Salary: Less than \$50,000	5.9%	11.8%	-6.0%

Source(s): Authors’ analysis of a national survey of 2,257 registered nurses conducted from October 1, 2021 through November 30, 2021 by Nurses Take DC (NTDC, 2021).

Five Potential Policy Options

At a time when nurses are in high demand and short supply, solutions that improve staffing levels, increase job satisfaction, improve quality of care, reduce moral distress, and combat labor shortages are essential. Results from this national survey of 2,257 registered nurses lead directly to four potential policy options and indirectly to a fifth.

- 1. States could consider enacting nurse-to-patient ratios or “safe patient limits.”** In states with nurse-to-patient ratios, registered nurses were 12 percent more likely to care for 5 patients or fewer, 13 percent more likely to report that staffing levels were based on the needs of their patients, and 12 percent more likely to say that their units’ nurse-to-patient ratios were safe compared with their counterparts in states without staffing standards. Registered nurses in these states were also 4 percent less likely to experience moral distress, 6 percent less likely to consider leaving the profession, and 9 percent less likely to change positions.
- 2. States could enact legislation to require staffing committees and strongly enforce the policy.** The legislation could require hospitals to create staffing plans based on the recommendations of staffing committees that are composed of at least 50 percent registered nurses who primarily provide direct patient care. However, when the recommendations of these staffing committees are not implemented or known to be implemented, outcomes related to staffing practices, moral distress, and nurse

turnover are essentially on par with states that do not have staffing standards—meaning that lack of enforcement eliminates the effectiveness of committees. When nurses worked in states that require committees and their recommendations were enforced, they tended to have the best mental health and retention outcomes. These nurses were 18 percent more likely to care for 5 patients or fewer, 34 percent more likely to report that staffing levels were based on the needs of their patients, and 15 percent more likely to say that their units’ nurse-to-patient ratios were safe compared with their counterparts in states without staffing standards. They were also 8 percent less likely to experience moral distress, 11 percent less likely to consider leaving the profession, and 7 percent less likely to change positions. One way that states could enforce staffing committee recommendations could be to impose financial penalties on hospitals that willfully ignore them.

3. **States could strengthen workers’ rights and encourage collective bargaining.** Union nurses were not only significantly more likely to earn higher wages and more demographically diverse, but they were also 8 percent more likely to care for safe numbers of patients, 4 percent less likely to consider leaving the profession, and 10 percent less likely to have recently left nursing positions. Union members had better staffing levels across all state policy frameworks, but the combination of unionization and safe patient limits can substantially improve nurse-to-patient ratios. Unions also serve as private enforcement entities that ensure staffing committees include nurses who provide direct patient care and that the recommendations of those committees are implemented.
4. **States and hospitals could increase mental health support available to registered nurses.** Even though 66 percent of nurses reported that they were depressed due to moral distress, only 30 percent said their work provided resources to determine levels of moral distress and improve staff wellbeing. Furthermore, only 25 percent of survey respondents said that they had seen therapists for the moral distress they were experiencing. “Unresolved moral distress” was a primary reason why nurses were considering leaving the profession altogether, after only “unsafe staffing.” By improving resources to diagnose and treat mental health issues, states and hospitals can improve retention of registered nurses.
5. **States could consider offering new scholarships and student loan forgiveness to encourage young workers to pursue nursing careers.** It bears repeating that a majority of registered nurses were considering leaving the profession. If more nurses quit their jobs or retire early, the shortage of registered nurses will only worsen. To address the nursing shortage that was exacerbated by the COVID-19 pandemic, lawmakers in New York State have proposed the creation of new scholarships to pay for tuition at public universities for students who pledge to work in areas with the most acute nursing shortages and additional “pathway to nursing scholarships” for healthcare workers who are already in the industry and want to get nursing degrees part-time ([Ortega, 2022](#)). The bill would also forgive \$8,000 in student loan debt per year, up to \$40,000 over five years, for nurses who practice full-time in designated nursing shortage areas ([Ortega, 2022](#)). States that take similar action would remove barriers to entry by reducing the costs of acquiring the education needed to become registered nurses.

Conclusion

Registered nursing faces a crisis. Nurses are reporting that staffing levels are inadequate, with very few saying that nurse-to-patient ratios are safe. Nurses are experiencing alarming rates of moral distress and depression. Concerns about unsafe staffing and unresolved moral distress are causing many registered nurses to consider leaving the profession altogether. While these issues are present everywhere, they are less severe in states with strong staffing standards—particularly in states with safe patient limits and in situations where the recommendations of staffing committees are enforced. Rates of attrition and turnover are also lower for nurses who are union members than they are for nurses who do not belong to unions. To reduce stress and burnout among registered nurses, states could consider implementing safe patient limits, enforcing staffing committee recommendations, strengthening workers' rights, increasing support for mental health programs, and offering new scholarships and student loan forgiveness. These policy approaches would help attract, develop, and retain registered nurses across the United States.

Sources

- Aiken, Linda H., Douglas M. Sloane, Jane Ball, Luk Bruyneel, Anne Marie Rafferty, and Peter Griffiths. (2018). "Patient Satisfaction with Hospital Care and Nurses in England: An Observational Study." *BMJ Open*, 8. doi: 10.1136/bmjopen-2017-019189.
- Aiken, Linda H., Douglas M. Sloane, Jeannie P. Cimiotti, Sean P. Clarke, Linda Flynn, Jean Ann Seago, Joanne Spetz, and Herbert L. Smith. (2010). "Implications of the California Nurse Staffing Mandate for Other States." *Health Services Research*, 45(4): 904-921
- Aiken, Linda H., Sean P. Clarke, Douglas M. Sloane, Julie Sochalski, and Jeffrey H. Silber. (2002). "Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction." *JAMA*, 288(16): 1987-1993.
- Aiken, Linda H., Ying Xue, Sean P. Clarke, and Douglas M. Sloane. (2007). "Supplemental Nurse Staffing in Hospitals and Quality of Care." *The Journal of Nursing Administration*, 37(7-8): 335-342.
- Bach, Katie. (2022). "Is 'Long Covid' Worsening the Labor Shortage?" Brookings Institution.
- Ball, Jane E., Luk Bruyneel, Linda H. Aiken, Walter Sermeus, Douglas M. Sloane, Anne Marie Rafferty, Rikard Lindqvist, Carol Tishelman, and Peter Griffiths. (2018). "Post-Operative Mortality, Missed Care and Nurse Staffing in Nine Countries: A Cross-Sectional Study." *International Journal of Nursing Studies*, 78: 10-15.
- Bartmess, Marissa, Carole R. Myers, and Sandra P. Thomas. (2021). "Nurse Staffing Legislation: Empirical Evidence and Policy Analysis." *Nursing Forum*, 56(3): 660-675.
- Blouin, Ann Scott, Cheryl A. Smith-Miller, Jacqueline Harden, and Yin Li. (2016). "Caregiver Fatigue." *JONA: The Journal of Nursing Administration*, 46(6): 329-335.
- Brown, Pamela. (2018). "ANA-Illinois Expert Panel Workplace Safety Survey: Staffing." *The Nursing Voice*.
- Bruno, Robert, Manzo, Emily E. LB. Twarog, and Frank Manzo IV. (2019). *Do Nurse Staffing Standards Work? Evidence from a 2018 Survey of Registered Nurses*. University of Illinois at Urbana-Champaign; Illinois Economic Policy Institute.
- Carnevale, Anthony, Nicole Smith, and Artem Gulish. (2015). *Nursing: Supply and Demand through 2020*. Georgetown University.
- Carthon, Margo Brooks, Heather Brom, Matthew McHugh, Douglas M. Sloane, Robert Berg, Raina Merchant, Saket Girotra, and Linda H. Aiken. (2021). "Better Nurse Staffing Is Associated with Survival for Black Patients and Diminishes Racial Disparities in Survival After In-Hospital Cardiac Arrests." *Medical Care*, 59(2): 169-176.
- Castro, Miguel Faria e. (2021). "The Covid Retirement Boom." Federal Reserve Bank of St. Louis.
- Cavaliere, Terri A., Barbara Daly, Donna Dowling, and Kathleen Montgomery (2010). "Moral Distress in Neonatal Intensive Care Unit RNs." *National Association of Neonatal Nurses*, 10(3): 145-156.
- Centers for Disease Control and Prevention (CDC). (2022). (a). "Covid-19 Provisional Counts - Weekly Updates by Select Demographic and Geographic Characteristics." U.S. Department of Health and Human Services.

- Centers for Disease Control and Prevention (CDC). (2022). (b). "COVID Data Tracker: Cases & Deaths among Healthcare Personnel." U.S. Department of Health and Human Services.
- Dickson, Allison, Frank Manzo IV, Robert Bruno, Jill Gigstad, and Emily E.LB. Twarog. (2021). *Women and Child Care in Illinois: A Survey of Working Mothers During the COVID-19 Pandemic*. University of Illinois at Urbana-Champaign; Illinois Economic Policy Institute.
- Dube, Arindrajit, Ethan Kaplan, and Owen Thompson. (2016). "Nurse Unions and Patient Outcomes." *Industrial and Labor Relations Review*, 69(4): 803–833.
- Economic Policy Institute (EPI). (2022). Current Population Survey Extracts. Version 1.0.27
- Everhart, Damian, Donna Neff, Mona Al-Amin, June Nogle, and Robert Weech-Maldonado. (2013). "The Effects of Nurse Staffing on Hospital Financial Performance." *Health Care Management Review*, 38(2): 146–155.
- Flanagan, Jane, Kelly D. Stamp, Matt Gregas, and Judy Shindul-Rothschild. (2016). "Predictors of 30-Day Readmission for Pneumonia." *JONA: The Journal of Nursing Administration*, 46(2): 69–74.
- Fowers, Alyssa, and Andrew Van Dam. (2021). "The Most Unusual Job Market in Modern American History, Explained." *The Washington Post*.
- Furst, Camille. (2022). "Nearly Half a Million Families Are Hurt by the Child-Care Labor Shortage." *The Wall Street Journal*.
- Gigstad, Jill, and Frank Manzo IV. (2020). *Pandemic Preparedness in Illinois: Illinois' Union Hospitals Were Better Positioned for the Public Health Crisis*. Illinois Economic Policy Institute.
- Griffiths, Peter, Jane Ball, Karen Bloor, Dankmar Böhning, Jim Briggs, Chiara Dall'Ora, Anya De longh, et al. (2018). "Nurse Staffing Levels, Missed Vital Signs and Mortality in Hospitals: Retrospective Longitudinal Observational Study." *Health Services and Delivery Research*, 6(38): 1–120.
- Han, Xinxin, Patricia Pittman, and Burt Barnow. (2021). "Alternative Approaches to Ensuring Adequate Nurse Staffing." *Medical Care*, 59(p): S463-S470.
- Hanna, Debra R. (2004). "Moral Distress: The State of the Science." *Research and Theory for Nursing Practice*, 18(1): 73–93.
- Hughes, Rhonda. (2008). *Patient Safety and Quality: An Evidence-Based Handbook for Nurses*. U.S. Department of Health and Human Services.
- Jacobs, Andrew. (2021). "'Nursing Is in Crisis': Staff Shortages Put Patients at Risk." *The New York Times*.
- Jameton, Andrew. (2017). "What Moral Distress in Nursing History Could Suggest about the Future of Health Care." *AMA Journal of Ethics*.
- Kane, Robert L., Tatyana A. Shamliyan, Christine Mueller, Sue Duval, and Timothy J. Wilt. (2007). "The Association of Registered Nurse Staffing Levels and Patient Outcomes." *Medical Care*, 45(12): 1195–1204.
- Liu, Jennifer. (2022). "Roughly 47 Million People Quit Their Jobs Last Year: 'All of This Is Uncharted Territory'." *CNBC*.
- MacKusick, Carol Isaac and Ptlene Minich. (2010). "Why Are Nurses Leaving? Findings From and Initial Qualitative Study on Nursing Attrition." *Medsurg Nurse*, 19(6): 335-349

- Mallapaty, Smriti. (2022). "Covid-19: How Omicron Overtook Delta in Three Charts." *Nature News*.
- Manzo, Frank IV. (2019). *The Fiscal Impact of Safe Patient Limits in Illinois Four Ways the Policy Would Improve Hospital Bottom Lines*. Illinois Economic Policy Institute.
- Martino, Vittoria di. (2002). "Workplace Violence in the Health Sector: Country Case Studies."
- Mather, Mark, Paola Scommegna, and Lillian Kilduff. (2019). "Fact Sheet: Aging in the United States." Population Reference Bureau.
- McCarthy, Joan, and Rick Deady. (2008). "Moral Distress Reconsidered." *Nursing Ethics*, 15(2): 254–262.
- American Association of Critical Care Nurses (AACCN). (2022). "Moral Distress in Nursing: What You Need to Know."
- Morley, Georgina, Jonathan Ives, Caroline Bradbury-Jones, and Fiona Irvine. (2017). "What Is 'Moral Distress'? A Narrative Synthesis of the Literature." *Nursing Ethics*, 26(3): 646–662.
- Neuraz, Antoine, Claude Guérin, Cécile Payet, Stéphanie Polazzi, Frédéric Aubrun, Frédéric Dailier, Jean-Jacques Lehot, et al. (2015). "Patient Mortality Is Associated with Staff Resources and Workload in the ICU." *Critical Care Medicine*, 43(8): 1587–1594.
- New York Times* (NYT). (2022). "Coronavirus in the U.S.: Latest Map and Case Count." *The New York Times*.
- Nurses Take DC (NTDC) (2021). Nurses Take DC commissioned the national survey.
- Ortega, Ralph. (2022). "Legislation Provides Incentives to Address Nursing Shortage in NYS." *City & State New York*.
- Pauly, Bernadette M., Colleen Varcoe, and Jan Storch. (2012). "Framing the Issues: Moral Distress in Health Care." *HEC Forum*, 24(1): 1–11.
- Prasad, Kriti et al. (2021). "Prevalence and Correlates of Stress and Burnout among U.S. Healthcare Workers During the COVID-19 Pandemic: A National Cross-Sectional Survey Study" *eClinicalMedicine*, 35: 100879.
- Rosseter, Robert. (2017). "News & Information: Nursing Shortage." American Association of Colleges of Nursing.
- Silber, Jeffrey H., Paul R. Rosenbaum, Matthew D. McHugh, Justin M. Ludwig, Herbert L. Smith, Bijan A. Niknam, Orit Even-Shoshan, Lee A. Fleisher, Rachel R. Kelz, and Linda H. Aiken. (2016). "Comparison of the Value of Nursing Work Environments in Hospitals across Different Levels of Patient Risk." *JAMA Surgery*, 151(6): 527.
- Silverman, Henry J, Raya Elfadel Kheirbek, Gyasi Moscou-Jackson, and Jenni Day. (2021). "Moral Distress in Nurses Caring for Patients with Covid-19." *Nursing Ethics*, 28(7-8): 1137–1164.
- Spence Laschinger, H. K., & Leiter, M. P. (2006). "The Impact of Nursing Work Environments on Patient Safety Outcomes: The Mediating Role of Burnout/Engagement." *The Journal of Nursing Administration*, 36(5): 259-267.
- Twarog, E. E. LB. (2018). *Nursing Under Pressure: Workplace Violence in the Illinois Healthcare Industry*. University of Illinois at Urbana-Champaign.
- Wiegand, Debra L, and Marjorie Funk. (2012). "Consequences of Clinical Situations That Cause Critical Care Nurses to Experience Moral Distress." *Nursing Ethics*, 19(4): 479–487.

Photo Credits

- AS Photostudio. ([Downloaded May 2021](#)). "Three African American group doctors with stethoscope wearing lab coat." Downloaded with Shutterstock subscription. Shutterstock image ID: 1802274553.
- Balielo Jr., Vidal. ([Accessed April 2022](#)). "Unrecognizable obstetrician and nurse carrying newborn baby trolley in hospital." Canva.com free images. Downloaded from Canva.com Pro Account.
- Dusanpetkovic. ([Accessed April 2022](#)). "Two professional nurses in office looking through some medical procedure." Canva.com free images. Downloaded from Canva.com Pro Account.
- Gpoint Studio. "Exhausted Male Nurse." ([Accessed April 2022](#)). Canva.com free images. Downloaded from Canva.com Pro Account.
- James, Laura. ([Accessed April 2022](#)). "Adult black nurse in outerwear walking in hallway." Canva.com free images. Downloaded from Canva.com Pro Account.
- Jupiterimages. ([Accessed April 2022](#)). "Nurses running in hospital." Canva.com free images. Downloaded from Canva.com Pro Account.
- Jupiterimages. ([Accessed April 2022](#)). "Nurse walking in hospital." Canva.com free images. Downloaded from Canva.com Pro Account.
- Pixabay. "Untitled." ([Accessed April 2022](#)). Canva.com free images. Downloaded from Canva.com Pro Account.
- Rodnae Productions. ([Accessed April 2022](#)). "Person in Blue Scrub Suit Holding the Hand of a Patient." Canva.com free images. Downloaded from Canva.com Pro Account.
- Sturti. ([Accessed April 2022](#)). "Senior staff nurse with junior nurse." Canva.com free images. Downloaded from Canva.com Pro Account.
- Sturti. ([Accessed April 2022](#)). "Male nurse with senior nurse." Canva.com free images. Downloaded from Canva.com Pro Account.
- Sudok1. ([Accessed April 2022](#)). "Working nurses in the CCU." Canva.com free images. Downloaded from Canva.com Pro Account.
- Vm. ([Accessed April 2022](#)). "Blurred emergency in hospital." Canva.com free images. Downloaded from Canva.com Pro Account.